THE PHI DELTA KAPPAN

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The great were once as you.
They whom men magnify
Once groped and blundered
on life's way,
Were fretful of themselves
and thought
By magic was men's greatness
wrought.
They feared to try what they
could do;
Yet fame hath crowned with
her success
The selfsame gifts that you
possess.

—Edgar A. Guest

The PHI DELTA KAPPAN

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CONTENTS

Measurement of Mental Phenomena 1
New Chapters on Roll 9
Can We Educate for Character? 10
The Proffesser on Leadership 13
Tau Chapter 15
Editorials 17
Service to Members
The Delta Achievement
As the Author Sees It 18
What They Lose to Save Schools 19
Cooperative Education in College 20
Guidance in College Education 22
Education by Radio 24
Guidance in Teacher Training 25
Publicity for Teachers Colleges 26
Contents of College Newspapers 28
Magazine Mailing List 29
The Service Key 30
Application for the Service Key 31
Phi Delta Kappa Price List 32
Directory of Districts and Chapters . . . Inside Back Cover

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Measurement of Mental Phenomena

SCIENCE, it has been said with pardonable exaggeration, is measurement. "When you can measure what you are speaking about and express it in numbers," said Lord Kelvin, "you know something about it; but when you can not measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind; it may be the beginning of knowledge, but you have scarcely in your thoughts advanced to the stage of science." But the beginning of knowledge is science, for science is knowledge. Science in general began with random observations and experiences, and not with any particular method. It advanced from science in general to *the sciences* by a process of specialization and an improvement in the methods employed. There is thus a difference between science and the sciences. Sir Francis Galton seems to have recognized this when he said, "Until the phenomena of any branch of knowledge have been subjected to measurement and number, it cannot assume the status and dignity of a science." But any branch of real knowledge may be called a science just because it is a "branch" of knowledge. It is a body of knowledge accumulated concerning a particular class of phenomena, and that is a science, at least in embryo. Whether astronomy could "assume the status and dignity of a science" before Pythagoras, chemistry before Geber, botany before Theophrastus, is a matter of opinion. It is obvious to anyone familiar with the history of the sciences that they do not begin with measurement. The exact point at which they reach "the dignity" of a science is relatively unimportant. It is not true, as Immanuel Kant declared, that "the amount of real science to be found in any special subject is the amount of mathematics contained therein." The amount of real science in any subject is the amount of knowledge it contains, and knowledge is often independent of mathematics.

We may admit the importance of mathematics in science without identifying science with measurement. Science is not measurement; it is knowledge. Measurement is but one of the methods whereby certain kinds of knowledge are obtained or tested. It is a tool of science, not science itself. Any branch of scientific investigation, particularly at a certain stage of its advancement, will have need of the mathematical method to test its results. Mathematics provides the norm by which the exactitude of knowledge in all the sciences is determined. To identify science with measurement practically cancels from the roll of scientists such names as Aristotle, Lamarck, Darwin, and Pasteur.

Granting the proper extension and supreme importance of measurement in the field of science, we propose to sketch briefly the origin and development of measurement in the field of psychology and education.

The Beginning of Mental Measurements

No one can say just when mental measurements began, but formal experimental psychology, in which measurement was at once employed, is usually traced to the experiments of Weber and Fechner about the middle of the last century. These psychologists are said to have established the mathematical form both of the methods and of the exposition of the general problem of psychological measurement. It is significant that Fechner was primarily a physicist. The first attempts at measurement were naturally concerned with the simpler psychological phenomena.

About the simplest of all psychological

By I. W. Howerth, Alpha Mu 49, Professor of Sociology, Colorado State Teachers College, Greeley, Colorado.

phenomena are sensations. A sensation is a mental state occasioned in the brain by the stimulation of a sensory nerve. When such a nerve is stimulated some sort of impulse passes along it from the point of stimulation to the brain or to one of the lower nerve centers. It was early discovered that there is a lapse of time between the application of the stimulus to the nerve ending and the sensation experienced; say, between a pin prick and the sensation of pain. Amongst the earliest of the attempts at measurements in the field of mental phenomena was that of trying to discover just how much time elapses, or the exact velocity of this current. Helmholz, the German physicist, measured it in 1850, but his result was found later to be inexact. We now know that in the normal human being it is about 300 to 404 feet per second. In the lower animals it varies and appears to be less. In the motor nerve of a frog, for instance, it is about ninety feet per second. It takes the average person about fifteen hundredths of a second to feel a touch or hear a sound after the appropriate stimulus is applied; eighteen hundredths of a second if the stimulus be light. The time in each case will vary with different persons and with the same person at different times. The early discovery that the speed of nerve impulses and the reaction time of stimuli can be measured opened up in the psychological field a wide area for mathematical investigation.

The mathematical method was soon extended to the measurement of responses when two or more stimuli are presented, and the subject is asked to respond in two or more ways; say, to a red light with the right hand and to a green light with the left hand. The reaction time will be longer, because it involves the additional element of discrimination. The subject experimented upon may be asked to name the complement of the stimulus applied, say, of a color; or to give the number next larger than the one called; or he may be asked to respond in a manner requiring deliberate thought, in which case the time required will be longer. There is no end to the possible measurements that may be made along this line.

Again, it was early found that a sensation will vary with the intensity of the stimulus. The sensation occasioned by light, for instance, will increase if the intensity of the light is increased, but not until a certain and definite addition to the brightness of the light has been made. So also with sound. Here was another opportunity for measurement. Just how much must be the increase in the stimulus before there is a noticeable increase in the sensation? That, too, could be measured. As the sensations of light and sound are occasioned by vibrations in the ether and air, or at least were supposed to be, it was argued that since the variation in the light or sound is a purely physical phenomenon, there must be an unvarying relationship between these physical facts and the corresponding mental facts. Naturally experimenters asked, Just what is that relation? It was at first supposed to be reciprocal; that is, that the increase in sensation is exactly proportional to the increase of the stimulus. Later it was found that this is not exactly true. The experimenters named above, however, were convinced that it is a constant relationship. Light, they said, must be increased about one hundredth to produce any change in the sensation of brightness; a weight must be increased about one seventeenth to produce a change in the sensation derived from muscular stress. A change in the sensations of pressure and of sound requires an increase of one-third in the corresponding stimulus.

On the basis of his own measurements and those of Weber, Fechner in 1860 formulated a law since known as the Weber-Fechner law. It is to the effect that a sensation increases as the logarithm of the stimulus—that is, the stimulus must increase in a geometrical ratio if the sensation is to increase in an arithmetical

one. Speaking of Fechner and the controversies aroused by his work, Boring says (History of Experimental Psychology, page 84), "the fact stands that he conserved, developed, and established new methods of measurement, and that, whatever may later be made of their products, these methods are essentially the first methods of measurement, and thus the beginning of quantitative experimental psychology."

Wundt, one of the greatest of experimental psychologists, held that this so-called law is applicable only to stimuli, that sensations themselves cannot be measured. Fechner himself did not claim that they could be measured directly. It seems clear that, if measurable, they are so only indirectly. Nevertheless, Wundt and his many students employed the method and extended the principle of measurement in all directions—to processes of association, judgment, thought, all sorts of mental discrimination, reaction time, the span of attention, memory, perception, states of consciousness, etc.—and applied it in some degree to the study of children, animals and peoples.

From the study of animal behavior later developed a series of experiments primarily physiological but of the profoundest psychological significance. Among these were the studies of Pavlov, a Russian physiologist, upon reflexes and their possible conditioning. He devised a technique for the observation and measurement of the influence of various factors upon certain physiological functions as, for instance, the secretion of saliva in the mouth of a dog in response to the stimulus of sight or smell. He found that the response could be elicited by other means than the original and natural one, that is, that reflexes may be conditioned. His theory obviously has a wide application in psychology, if indeed it is not the basis of it. Pavlov himself seems to think that it will take the place of psychology. He warns his students to beware of psychology and to keep their methods purely physiological. They have proceeded, however, to establish a complete science of personality by the use of wholly objective methods. They have established a form of behaviorism. J. B. Watson, though not directly a student of Pavlov, adopted his method, threw overboard the whole concept of mind or consciousness, the central feature of the old psychology, and endeavored to construct a psychology based wholly upon behavior. Naturally this would make psychology mechanistic and place it upon the same basis as the physical sciences, measurement being applicable over the whole field.

Soon after Weber and Fechner's contributions there began to appear in the literature of psychology, references to the "law of probabilities" previously developed by La Place and given its present form by Gauss; also to the "law of error," observed in the distribution of human traits by Quetelet as early as 1853, and which gave to Sir Francis Galton in 1869 the idea of the mathematical treatment of the inheritance of genius. Measurement rapidly entered the statistical phase.

From the examples of physiological and mental measurement already given and the extension of the method of measurement to the emotions, attention, memory, ideas, and all the higher intellectual processes, it began to be claimed even by nonbehaviorists that the science of mental phenomena rests upon the same basis as the physical sciences and is susceptible to the employment of the same quantitative methods. Whether the measurements were correct or not—Müller, for instance, estimated the velocity of a nerve impulse as sixty times the velocity of light!—it could be contended with some show of evidence that the science of psychological phenomena had been brought down from the ethereal region of speculation to the solid basis of experiment and mathematical measurement. It was passing from the closet and armchair of

the philosopher to the laboratory of science. To be sure, the passing was rather slow, for while the Weber-Fechner experiments, and the so-called Weber Law, date from the 1860's, no psychological laboratory appeared in Europe until 1879 (really a laboratory of physiological psychology), or in this country until 1884. "At its very beginning," says Villa, "physiological psychology discovered a law—the 'Weber-Fechner Law'—by means of which it was sought to establish an exact relation between the intensity of physical impression and of the resultant sensation. This discovery, which became thenceforth the basis of the majority of psychological experiments, roused great hopes among psychologists; being even interpreted by many as a proof that the processes of consciousness may, like physical phenomena, be subjected to mathematical law, and are therefore like another form of the latter; moreover, the progress made by the study of the general physiological phenomena attendant upon certain states of mind, such as emotion, processes of volition, etc., encouraged psychologists to consider objective observations as the only possible way of arriving at any positive result."

At any rate, the experimental method, including measurement, had won a place in human psychology, and its value in animal psychology has been conclusively demonstrated by Morgan, Jennings, E. L. Thorndike, J. B. Watson, and many others.

Individual Differences

We must pass over the many other applications of measurement in psychology by Wundt, Müller, Stumpf, Brentano, and other German psychologists and betake ourselves to America where students, fresh from the laboratory of Wundt, began with great enthusiasm to set the measurement ground afire. Chief among these was J. McKeen Cattell, whose chief interest lay in the measurement of individual differences.

The measurement of individual differences began in biology. Individual differences are no discovery of psychology or of those who later engaged in the application of mental tests. They have perhaps always been recognized through common-sense observations. Aristotle long ago observed that reason and intelligence are not found equally in all animals or in all men, and the observation could hardly have originated with him. Biology, as indicated, introduced the conception in science. Darwin presented "variation," which of course means differences, as one of the cardinal elements in the principle of Natural Selection by which he explained the process of evolution among organic beings. Variability is the foundation of his theory. He used the phrase "individual differences" more than once. "Some authors," he says, "believe it to be as much the function of the reproductive system to produce individual differences, or slight deviation of structure, as to make the child like its parents." Again, he says, "The many slight differences which appear in the offspring from the same parents, or which it may be presumed have thus arisen, may be called individual differences." Alfred Russel Wallace, the great contemporary of Darwin and co-discoverer of the principle of Natural Selection, showed that "individual variability is a general character of all common and widespread species of animals and plants," and that "this variability extends, so far as we know, to every part and organ, whether external or internal, as well as to every mental faculty." Note the last phrase. He endeavored to show that this is true by a careful system of measurement, involving numerous diagrams drawn to scale, and exhibiting the actual variations in inches. Sir Francis Galton gave his attention to individual differences in sweet peas and moths before he turned to mental measurements, and used in his investigations the well known frequency curve. In Wallace's treatment of such

differences he devoted a section to variations in the habits of animals.

With such a lead, it is easy to understand how the measurement of individual differences was carried over from biology to psychology though it does not explain why such measurement in psychology has been by some almost exclusively confined to the measurement of differences in intelligence. That fact has in part a social explanation.

The Measurement of Intelligence

The measurement of individual differences and of simple sensory and motor functions which engaged so much attention in early experimental psychology naturally led to attempts to measure intelligence, which was at first naively regarded as of a unitary character. Ebbinghaus was among the first to offer a theory of intelligence and a technique for its measurement. The completion test is one of the residues of his method. Cattell first used the phrase mental tests in the title of an article published in *Mind* in 1890. In the same year Kirkpatrick applied individual mental tests to school children and compared their mental scores with achievement. In 1893 Cattell published in the *Educational Review* another article on "Tests of the Senses and Faculties" in which he presented further arguments for the use of mental tests. In conjunction with Farrand he gave in 1894 a number of tests to college freshmen and seniors in Columbia University. Cattell is perhaps entitled to be called the father of intelligence testing in America. Kelly in 1903, and Norsworthy in 1906, applied intelligence tests as a means of comparing normal and defective children.

E. L. Thorndike, a student under Cattell, beginning with the application of measurement in animal psychology, soon turned his attention to the measurement of intelligence. By his well-known contributions to the theory and practice of mental testing, he has become one of the two or three leaders in the testing movement in this country. Terman of Stanford University in 1916 published a standardized revision of the Binet-Simon Test and extended the scale of tests up to the adult level. He has employed it with interesting results, social as well as educational, in a thoroughgoing study of specially gifted children. To save time, group testing soon began to be practiced and reached its most extended application in the famous Army Tests in 1917.

The measurement of intelligence on a large scale seems to have been first applied systematically to those who did not possess much intelligence. It was undertaken as a device to segregate for special instruction the mentally defective children in the schools of Paris. With the naive assumption that the mentally defective constitute a definite class, that there is a gap between the mentality of the normal and the defective, an assumption now discredited, an attempt was made to find just what children were behind in their studies from heredity or disease and so in need of special instruction. Alfred Binet (1857-1911), who had already interested himself in attempts to devise suitable measures of intelligence, was induced to undertake the task. His first concern was to provide an accurate means of measurement, a psychological criterion of mental deficiency, on the basis of which the defective children could be selected scientifically. In 1905, in cooperation with Simon, he devised a scale involving a set of tests requiring the naming of designated objects, the comparison of the lengths of different lines, the repetition of digits, the completion of sentences, and the comprehension of questions; the whole presenting to the child a chance to display his intelligence by the successful performance of the tasks given, and by the time required in each case. This scale, since known as the Binet-Simon scale, was revised in 1908 and adapted to different age levels experimentally determined. A child's age

in years was held to be of no special importance in the test except in relation to his performance. If a child six years old could pass the test of an eight-year-old, his "mental age" was eight. The mental age subtracted from the chronological age gave the degree of retardation. About this time it was urged by Stern that absolute retardation was of less importance than relative retardation. He therefore suggested the use of what has been called the I. Q. (Intelligence Quotient), so familiar today to students in our schools and colleges. The I. Q. is found by dividing the mental age by the chronological age. This was supposed to be fairly constant from year to year, and measurements generally seem to confirm this view. Binet continued to revise his scale until 1911, the year of his death.

It can hardly be denied that this mode of discriminating between normal children and those supposed to be subnormal or feeble-minded, was far better than the observational methods of teacher and companions that had hitherto been employed. It is equally significant that the method was regarded as imperfect, otherwise there would have been no need of revising the scale from time to time. It is not generally believed, however, that Binet was really measuring intelligence. He was merely comparing what was supposed to be the intelligence of one set of children with what was supposed to be the intelligence of average children of the same age.

Although many attempts at measuring intelligence were made before those of Binet, it was Binet's method that was soon carried from France to other countries, among them the United States. Here also the method was early applied to the measurement of subnormal individuals. Goddard in 1910 adapted it to American conditions and employed it in testing the inmates of the Training School for the Feeble-Minded in Vineland, New Jersey. From its use in the classification of the feeble-minded it was soon extended to the grading for instruction of normal children in the schools.

Binet's scale had been revised three times by him; it now underwent further revisions and re-revisions—by Kuhlman, and by Burt in England, for instance. Tests and scales for mental measurement increased with something like the rapidity of the increase of rabbits in Australia after they were introduced in 1863. The woods are full of them. Tests became something of a fad like crossword puzzles. There are literally thousands of them. I have before me, as I write, a list of over five hundred. They are applied to about everything in the field of mental phenomena, and throughout the whole field of education in the ranking of pupils and in the admission of students to colleges. Everybody regards himself as more or less of a judge of intelligence, and anybody can make and apply some sort of intelligence test.

Some of us think the testing movement, particularly in education, has been carried to an almost ridiculous extreme. Everybody is doing it. It is a mistake to try to make every teacher a tester. Teaching is not testing. It is directing, stimulating, inspiring, generating a love of knowledge, interest in its pursuit and in the methods whereby it is obtained. Every true teacher is interested in the results of his teaching and these results may be, in part, determined by testing. Tests, however, should not be given by Tom, Dick and Harry. We should let George do it, and George should be someone who is specially interested in the technique of testing and specially trained in administering tests.

Perhaps the most valid criticism of intelligence tests is that we cannot be sure that they test intelligence; for there is no general agreement as to what intelligence is, to say nothing of the difficulty of measuring it. In the haste to apply the tests devised, sufficient attention has not yet been given to the nature of intelligence. What is it? Is it a single function or the

activity of a combination of factors? Is it general or specific? Does it depend upon a single hereditary factor or upon many? If upon a single factor, is it quantity or quality of cerebral cells, or the connections established between such cells? It is now held by many that it is not a single faculty, that it is not something or other which is "possessed," but that it is a function of the whole organism, which manifests itself differently at different times and in different situations. We have no "faculty" of intelligence. What we do have is intelligent and unintelligent behavior. Intelligent behavior has been defined as successful adaptation to new situations. But what is meant by successful adaptation? Adaptation to the given situation or to the situation in relation to its ideal or long-time effects? If intelligence means merely adaptation to a given situation, it is plain that it should be ascribed to the lower animals and to plants as well as to men. All living things must adjust themselves to given situations or suffer the penalty of death. It would be better perhaps, since our main interest is in the measurement of the intelligence of human beings, to limit our conception of intelligence to purposive thinking. Some have said that it applies only to that kind of behavior, that is, to the purposive thinking that results in problem solving. But, as is well known to every school boy, such thinking does not always result in the solution of problems. What should we say, for example, of the philosophers if the solutions of problems alone imply intelligence. Are they intelligent? They have set out for ages to solve the problem of the universe, and none of them up to date has arrived at a solution that is generally regarded as successful. The technique of mental training has greatly improved since its introduction in the 1890's, through continued criticism and consequent improvement in tests. More attention must now be given to what we are trying to test.

Suppose we define intelligence, as some do, as "the capacity to adapt one's self to social life." Then what are we to say of those who deliberately refuse to adapt themselves to the social life of their time? Are they all criminals, and unintelligent? Some of them have been martyrs and are numbered among the saints; and, as everybody knows, criminals are sometimes highly intelligent. Binet himself thought that intelligence involves three factors—"the ability to understand directions, to maintain a mental set, and to apply self-criticism to one's behavior and thus to correct one's errors." But sometimes it is unwillingness to follow directions rather than the inability to understand them, that is the matter most complained of. Thorndike thinks there are six elements in intelligence. Do we hear higher bids? Intelligence is like some other things that everybody knows exist in quantity, but which nobody is able to define. Until we can define intelligence we should not proceed altogether upon the assumption that we are testing it with mathematical accuracy.

Perhaps the general criticism of mental tests may be fairly summed up in the statement that too much is made of them by many while they are in the tentative and experimental stage. John B. Watson, leader in this country of the behavioristic school of psychology, says, "The behaviorists do not quarrel with tests. They quarrel only with the exaggeration of their importance in the hands of certain schools, for example, those of Terman and Thorndike. They are good as far as they go but they are not 'mental' tests or 'intelligence' tests. Nor are they the whole of psychology or even a large part of it. They are more or less *random samplings of the individual's organization at a given age* and particularly of the *verbal organization* of the individual tested. They are in no sense an adequate basis for the selection of personnel or even for making ordinary personality judgments."

It seems clear at least that the scien-

tifically accurate measurement of intelligence must await the further revision of intelligence tests and deeper insight into what intelligence really is. It is already recognized that in forecasting the probable achievement of an individual, interest, and driving power and other qualities must also be taken into consideration. These, too, must be tested. Unwillingness to learn must not be confounded with unintelligence.

Personality Traits

It was to be expected that from the testing of intelligence in gross and factorially, attention would soon be given to similar testing of personality, although this term, too, is hard to define. It was. Numerous tests have been devised for testing the various emotions. Will-temperament tests have been undertaken by Downey and others. Practical tests have been constructed for testing honesty, fair-mindedness, trustworthiness, opinion, deceitfulness, etc. Thurstone, in an article in the American Journal of Sociology, January, 1928, argued that attitudes can be measured, and has detailed the methods to be employed. He has also constructed a number of attitude scales. Others have followed his lead. Bogardus, Binniwies and others have concerned themselves with the measurement of social and occupational distance. In short, testing has invaded social psychology with a rush, using to a large extent the questionnaire method which of course has its serious limitations. The results so far are naturally tentative. In general no methods wholly new in principle have been employed. Hence, for lack of space, we merely record the movement and let it go at that.

Racial Intelligence

It has long been held that mental characteristics are inherited. The rediscovery in 1900 of Mendel's investigations, made some fifty years before, in regard to the laws of inheritance of specific characters as manifested in sweet peas, awakened renewed interest in the general study of heredity. Taking it for granted that mental defectiveness is handed down from parent to child, it was soon proclaimed that feeble-mindedness is inherited in exactly the same ratio as is dwarfness in sweet peas. Evidential support of this view was soon accumulated, the conclusion being more or less assumed from preconceived ideas. It was not difficult to find evidence in support of it. It was then declared that the children of feeble-minded parents are always feeble-minded. If, in a given case, it didn't turn out that way, it was supposed that something was wrong with the test for feeble-mindedness. This conclusion is not now accepted, though it is generally admitted that feeble-minded children are more likely to be born of mentally defective parents than from normal. It has been shown, too, that the feeble-minded are not entirely a separate class. They are merely those whose intelligence happens to fall below a point more or less arbitrarily selected on the curve of mental distribution.

When the Great War came on and men had to be classified quickly with respect to their mental ability, mental tests, revised again and made applicable to groups, were employed as a handy means for the purpose in mind. They showed wide discrepancies in mental ability among enlisted men. Accepting the results of these group tests, hurriedly made, as scientifically accurate it was loudly proclaimed that the average mentality of the enlisted men of the army was about that of an average 12-year-old child. We were then told that we are a nation of morons, and it was argued seriously that about twenty-five per cent or more of our population are unable to govern themselves. Democracy, it was said, is bound to be a failure. The whole nation is tobogganing to destruction through the present number and rapid breeding of the feeble-minded and the underbred. Tests as applied to other races than our

own, gave us the consolation of learning that all other races are "inferior" to ours, and hence there devolves upon us the responsibility and duty of governing them, as well as the 25 per cent of inferior citizens of our own nation. We were urged to take up the "white man's burden" of dominating and exploiting the inferior races; and the doctrine strongly appealed to those who were inclined to do just that sort of thing. It is significant that no race or people has convicted itself of mental inferiority by self-applied tests. It is those who do the measuring who are likely to find inferiority in the measured. Ample evidence can be presented to show that general conclusions in regard to racial inferiority or superiority based upon the results of mental tests are premature. Sufficient evidence is not yet in. It is unfortunate that social, political and economic policies have been proposed, and in some cases even adopted, upon the basis of racial inferiority said to be "proved" by intelligence tests. As Kroeber says, it is one thing to admit the theoretical probability of racial differences in mentality and another to construe the admission as justification of mental attitudes which may be well founded emotionally but are in considerable measure unfounded objectively. "It is a difficult task," he says, "to establish any race as superior or inferior to another, but relatively easy to prove that we entertain a strong prejudice in favor of our own racial superiority." (Anthropology, p. 85.)

Conclusion

We have been concerned here chiefly and primarily with the origin, development and extended application of mental measurement in the field of psychology and education. We have indicated the relatively recent origin of such measurements, and how they have swept over the field of educational psychology. Of this particular science it might almost be said that today it is measurement. Some slight criticism has been made or implied of certain exaggerated claims for intelligence tests made usually by those who know least about them, but there is none of the principle of measurement. "Anything that exists in quantity can be measured"—"can be," not necessarily "has been." Science, we have asserted, is broader than measurement. This is true of educational psychology. We should not ride the hobby horse of tests to death with the idea that this kind of equestrianism entitles us to rank among the knights of science. It is not necessary to be testing something in order to be engaged in scientific procedure. But such procedure involves at times the use of measurement, the successful employment of which in education requires a background of rigid scientific training in psychology and the related sciences. Measurement is applicable to them all. We subscribe unqualifiedly to the credo of C. Judson Herrick who, though not a behaviorist in the narrow sense, declares the conviction that "the world of inorganic nature, the world of living things, and the world of man in his loftiest flights of creative imagination and his most refined spiritual experiences and moral triumphs is one nature and all of it lies within the scope of natural science" (The Thinking Machine, p. 360). The potential and legitimate scope of measurement, then, is human experience, past, present and future. That is to say, natural science. In psychology and education it is—psychology and education.

New Chapters on Roll

The twenty-third fiscal year closed with the addition of three new chapters on the roll of Phi Delta Kappa. Alpha Omicron Chapter was installed at Claremont Colleges, Claremont, California, on May 21, 1932. Alpha Pi Chapter was installed at Rutgers University, New Brunswick, New Jersey, on May 28, 1932. Alpha Rho Chapter was installed at Johns Hopkins University, Baltimore, Maryland, on May 30, 1932.

Can We Educate for Character?

THE Junior High School, with its philosophy of a life-living school, seems to have inculcated into our educational program a step toward the establishment of a needed social stability. It has awakened educators to the possibilities in education. It has diverted our attention from the teacher to the pupil, from requirements to interests, and from discipline to ideals.

We are confronted at once with a gigantic problem. If we are to educate for character and recognize in that process a need for the specific selection of those traits, ideals, attitudes and characteristics which contribute to the making of character, it becomes necessary that a social consciousness establish a level of those standards and values which contribute to the making of character.

This study, which continued for the period of one semester in the West York Junior High School, was in response to a recognized need for the development of some technique, manner and method for imparting character instruction. The traditional program of moral instruction in our schools has been along indirect lines of instruction. Educators in the past have agreed in a most unusual fashion to this type of procedure. This indirect method formerly rested on the assumption that there was a transfer value in those ethical and wholesome stories and incidents with which students come in contact. The difference in opinion as to the nature of the material to be presented as well as the manner in which it should be presented when direct instruction is being pursued indicates the necessity of experimentation along those lines. This study, consequently, was based entirely upon the degree of improvement which could be attained through teaching character by the direct method. This method necessitates the building of that instruction about those traits, habits, or ideals which make up life and personality. There is a difference of opinion as to which traits are the predominating major traits in everyday life and as to which traits are the minor and related traits to those in predominance. In order to avoid any embarrassing complications, this study was based upon three traits which are usually considered major traits. They are courtesy, cooperation, and dependability. The related traits to courtesy are listed as politeness, affability, and civility; those related to cooperation are helpfulness, loyalty, obedience, open-mindedness, and good sportsmanship; those related to dependability are promptness, reliability, responsibility and accuracy. With these three major traits as the criteria for study, three major problems were set as the objectives of the study. Each problem involved a related problem which was concurrent with and concomitant to the major problem of the study.

The problems of the experiment are:

I. To determine to what extent the teaching of responses to school situations involving the traits, courtesy, cooperation, and dependability, transfers into home situations which call into use similar traits. The teaching to be organized according to the direct method and presented to junior high school pupils for the period of one semester.

A. The degree of transfer to be determined by the comparative scores of twenty parents distributed evenly between the control and the experimental groups.

II. To determine the degree of improvement resulting from this same teaching according to the scores of:

A. Twenty homes cooperating in the study;

B. The seven teachers who meet these pupils daily;

C. The self-rating of the pupils in the study.

III. To determine if there exists any rela-

By M. E. Gladfelter, Phi 238, Principal of Temple University Junior and Senior High School, Philadelphia.

tionship between the mental aptitude of students as shown by the I. Q., and the improvement resulting through the teaching of the proper responses in situations involving courtesy, cooperation, and dependability for a period of one semester as denoted by:

A. The ratings of seven teachers;

B. The self-ratings of the pupils in the experiment.

Administrative Procedure

Problem one was carried on with twenty and fifty seventh-grade students. The study in home transfer involved ten students in an experimental group and ten students in a control group. The twenty students, respectively, comprised parts of an experimental group of twenty-five and a control group of twenty-five for the determining of problem two.

The groups for problem one were equated on the basis of the intelligence quotient as arrived at by the Otis Self-administering Tests of Mental Ability, Form B, the school deportment grade, the individual score on a good-manners test, and a home study according to a self-analysis form. Each home represented in the study was known as to environmental influences, attitude toward child and school, cultural background and home training. This knowledge was gained through contact with the home. It also formed a criterion for grouping. The good-manners test is a very general test with no statistical significance. Its value was based on its relation to general practices in etiquette.

Each group received instruction one fifty-minute period each week for eighteen weeks. Four of these periods were rating and self-analysis periods. Each group was taught by the same teacher and under the same conditions. They received instruction along the same lines except that the control group in grade seven was taught school situations only. All other groups were taught home and school situations.

Each period of instruction was built upon two work sheets which comprised part of a series of lessons called purpose pages. The first sheet contained a free-hand illustration created and designed by a student and supplemented by short stories, poems, and sayings. This material was all centered about the general theme of the lesson. Examples of such themes are "Sportsmanship," "A Peep Into the Mirror," "Detours," etc. The verses and sayings were adapted to this theme and furnished source material for an indirect approach to the second work sheet.

The purpose page for Mother's Day contained a short historical sketch of the origin of Mother's Day, Kipling's "Mother o' Mine," "Somebody's Mother," and an original short story on "Mother." These were all centered about a sketch of a white carnation.

The second part of each purpose page contained the situations. These were selected from a list approved by one hundred and fifty teachers as being representative and selective situations. The following samples illustrate the type of situation used.

Courtesy:

1. You are a boy. You reach the door the same time as a girl.
2. A person near you is not aware that he has dropped something. You see it fall.
3. You fail to keep an appointment.
4. You are marching in line with others.
5. A child slips or stumbles. You do not know whether the child is hurt.
6. A pupil in your room laughs loudly at some humorous remark which another classmate has made.

Cooperation:

7. An officer regulates traffic at one corner. You are coming to or leaving school.
8. Your group is playing together on the playground. Apparatus is limited.
9. You have been asked to take part in a program.

Dependability:

10. You are a cadet. Your best friend willfully disobeys you.
11. You, a cadet, ask for tasks. You find the task a hardship.

Each pupil wrote his answer to each situation upon first receiving this page. These answers were then turned in to the instructor who checked them and

returned them at the next meeting of the class. Each situation was then discussed separately and the proper response agreed upon. The responses were determined according to a key to the situations.

Conclusions

The improvement resulting from the teaching was measured statistically according to a rating scale. The validity and reliability of this rating scale was determined and found sufficiently high to have statistical significance. The students were rated before and after the teaching period by themselves, by seven teachers and by the parents who co-operated in the first problem. According to the statistical computations, the summary of the study indicates:

1. That according to the ratings of twenty parents, there was a transfer in the teaching of school situations to home situations;

2. A. That according to the ratings of twenty parents, there was a significant improvement in the responses of these pupils to those situations involving courtesy, cooperation and dependability;

B. That there was no improvement according to the scores of seven teachers;

C. That there was a significant improvement according to the self-ratings of the seventh-grade pupils in the study.

3. A. That there was no significant improvement in the responses of eighth-grade pupils according to the ratings of seven teachers.

B. That there was a significant improvement according to the self-ratings of the eighth-grade pupils in the study.

C. That there is no difference in the comparative improvement of dull pupils and bright pupils.

The significance of the conclusions of the study, however, do not rest entirely upon what these statistical findings would indicate. The observations of the instructors as well as those who directed the study would warrant general conclusions. These conclusions take into consideration the criticisms submitted by those who followed the experiment in an interested but nonparticipating manner. A careful evaluation of method and material suggests some conclusions. The resulting attitudes of the participating pupils to the course cannot be discounted. The manner in which they adapted themselves to situations in a mechanical rather than a spontaneous way reflects to a great extent the desirability of such teaching. The findings of another study which seem to indicate that most students know what to do but do not always do that which they know is desirable, bore further evidence in this study. Consequently, general conclusions might be summarized as follows:

1. That the teaching of character education should be built around the direct and the indirect method.

2. That there should be no scheduled class or class period for character education. It is likely to become a mechanical part of a course of study by such procedure. Every period should be a period for character education.

A. Each teacher should be encouraged and required to take advantage of every opportunity during every class for the teaching of the proper responses to those situations which contribute to the building of character.

B. That there be at least one homeroom period a week during which general character situations are discussed in an organized fashion.

C. That teachers treat their courses as fundamentally character-building in objectives.

3. That the traits chosen for homeroom study be limited to a select list of not more than ten major traits. Those traits should also have listed the related traits.

4. That each teacher be provided with a manual or course of study built around these traits and embodying as many situations as possible. This manual should contain such material as would lend its use for faculty meetings.

5. That public education must specifically plan to educate for character. The teacher's will or mood can no longer be relied upon to take advantage of situations.

The Proffesser on Leadership

(With Apologies to Will Rogers)

Dear Proffesser:

I been told that you've got to speak to some of those fellows in Berkeley who belong to a society with a name brought over from Greece and what think they know something about how to teach school and that you've got to talk to them about leadership. Well, all I know is what I read in the professunal magazines—you know, Ballyrugh, Swift Serials, Unkempt, High Kites, and so forth—but reading these papers I thought I could give you some pointers about what to say to these young fellows which and all they can understand.

Now if I was you—and I'm glad I ain't—I'd tell them gathered about the festive board—that sounds pretty good, too—that everybody everywhere is saying and writing that the trouble with the country is we got no leadership. Now I think that's true except for the Democrats and they got so many leaders they don't know which one to choose—or mebbe they are like Calvin, they don't choose. Anyhow, this leadership business I guess is about going on the rocks and I figure that the reason is nobody's got any place in mind they want to lead to. You know you can't lead unless you got something as a sort of ranch house, or corral, or shack that you're aiming at. You don't just lead, you lead to somewhere, so to be a good leader you just nacherally got to have somewhere in your mind—that's what they call an objective, they tell me. You take Al Smith, he has a big objective and he just keeps going after it throwing one old brown derby after another into the ring, and that's why he's a great leader. But that's politics and we've got to keep on the trail.

Of course there's lots of youngsters who are willing to climb up on the bandwagon for any kind of a show and lead the parade—and some of 'em get the notion somehow that when they do this kind of a stunt they're leaders. Well, that ain't my idea of leadership. Ma Ferguson and Aimee are first-rate drivers of a bandwagon and they put on a great show but shucks that don't make 'em leaders. There's Sunny Jim too—he's a regular prince of showmen, has got old man Barnum shoved off the map, but that's not what I call leadership. I just can't figger that gettin out front and struttin up and down, showing off like a wild pinto looks anything like leadership, somebody's sure to try and throw a rope with a loop in it at you and drag you off just about any minute and then you're not a leader any more because you ain't up front then.

Well, there's those folks besides who are always telling about how they did things first, and they kind of figure themselves as leaders. Now, doing things first don't mean leadership, anyhow it don't to me. It's most like trying to set a record or something like that. You know a while ago there was all this setting on flag poles, or up in trees, or things like that and folks got all het up about being leaders in all kinds of endurance—that means hanging on longest—stunts. Now, of course, when a fellow, or two of 'em, sort of try out to see how long they can make an airplane stay up I guess that's a kind of leadership because somebody's got to make folks know how safe flying is anyhow and when you really show folks that something good for 'em is really good, and you kind of make 'em do what's good for 'em even if they don't want to—well mebbe that's something like leadership. But just being first unless you bring along some seconds, and

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By L. A. Williams, Lambda 200, Professor of Education, University of California, Berkeley. This paper was presented to Phi Delta Kappa at a joint initiation of Delta and Lambda Chapters on March 5, 1932.

thirds, and fifty-sevens, and hundreds and thousands don't make you a leader. When the rest of the folks come along and you find they are keeping step with you sort of urging you along and making you live up to your promise why then you've begun to show leadership, because the followers have sort of made you what you are so you are not really leading them they are just pushing you. No, being first to do a thing is only the nursery school stage. That don't even count for attendance.

But what I'm trying to get at and say is that it seems to me this thing we United Staters all need, or what everybody says we all need, is a sort of inside all-wrapped-up-in-you sort of a thing that's human and warm and mebbe kind of sentimental-like. Now you take Morrow, when he went down there into Mexico he made 'em all think he loved every mother's son of a Mexican most to death; he'd talk to the President about everything else but politics and he'd praise the President's horses and cattle and everything else he saw and keep looking to see more so that when politics did come up in a offhand sort of a way why there wa'n't no hard feelings about the Gringo and everything was all set straight in the quirk of a coyote's tail. Now that's leadership—sort of get under the other fellow's skin so you and him speak the same dialect, so you and him feel like you was braves in the same tribe, and then the other fellow thinks you are just about right and you have him thrown and hobbled so he'll go right along with you.

You know the savage—that's one of my relations and so I can talk about him and tell you about his tricks—well, he sort of figgers that a stranger must be his enemy and he won't make up to him or go no place with him until after there's been a long powwow and he's learned something about this stranger. But when he finds out this stranger is just like him and chews the same gum, smokes the same cigarettes, drives the same kind of an old Ford he does why then he and the stranger just get along together fine and the stranger can sell him an oil well or a piece in one of them Los Angeles subdivisions without him ever seeing the land. Well, of course you don't want to abuse such confidence for any such skullduggery but the general idea is all the same, the stranger was a leader because he got the savage to understand how they both were pretty much the same fellers under their hides and so the savage was willing to be sold on a new proposition.

Course, you can't do this just on bluff, you've got to really have something to pass out to him that's good for a trade. You'll probably catch an old mare once in a while by shaking an empty measure in front of her, but if you are looking for a real live cayuse you've got to have oats in that measure. But you see it's like this—leadership's something you can't rustle and round up, it's doing things and it's feeling things too. Sometimes you have to get off your pony and show the boys just how it's done and be awful patient with 'em explaining this thing and that thing and give them a chance to try, and then do all the explaining and the showing all over again. But it ain't the showing and it ain't the explaining and it ain't the patience that's leadership, it's just your sort of making the boys feel they're doing something their own selves, kind of guiding and steering 'em along until they think they've stole the show. Leadership's not doing the thing, it's getting other folks to do the thing and thinking all the time it's their idea. I don't really know but they say that's the way Columbus worked it to get Spanish royalty to finance his summer cruise to America; and Cromwell did the same thing when Charles I lost his head; and I guess if the drys hadn't got over-anxious the same thing would have happened to the whole United States in 1918, but somebody spoiled the show. Why you know you can make folks in the United States do anything you tell 'em to, vote for Hoover, cancel

the debts, reduce the navy, wear Eugenie hats, drink bad likker, or anything else if only they think it's *their* idea—and they call it being democratic. Why I guess Alice Longworth would even invite Dolly Ganns to dinner if you could make her believe it's democratic. But I mean leadership means you and the rest of the gang sort of team up together and lope along "cheek by jowl" as the writer fellers say.

There's lots of young fellows in teaching I guess just the same as in everything else who think the leaders are the ones who give orders and make others do the work. Well, mebbe bosses do that, but a boss ain't always a leader—he's just a boss. Charlie Dawes tried that on the Senate, you know, and he wa'n't much shakes as a leader of the Senate, they sort of took it and went right on doing just like they always done. There was a chap I knew once down in Texas who always talked about "*my* teachers," "*my* schoolboard," "*my* school," and all that sort of thing—well, he was the poorest leader I ever did see; he couldn't lead from trumps when he held the ace and all the face cards in his own hand. Having a title as boss don't make leadership, and just because you have a nice office with a glass-topped mahogany desk and lots of filing cases and pretty pictures on the wall it don't mean you are a leader. Anybody who's going in for leadership's got to just get all set to do a mess of hard work, to forget all about being a boss who gives orders, and learn how to handle folks, how to get inside the ones he's trying to lead and see things with their eyes, talk their lingo, and listen with their ears. Sure, sometimes when you get inside you can make those folks you are trying to lead see with your eyes, use your sign language, and hear what you want 'em to hear, but not by ordering 'em to—by leading 'em to.

Well, Proffesser there's a lots more I could tell you about leadership but I reckon this is about enough for one speech unless you have a hankering to act like a Senator and just talk to fill up time. O, and say, if you really want to know what leadership is like you just get into one of these big cross-country airplanes and watch the pilot make that old ship behave; he just finds out what the old girl will do and then he does the things that will help her to do what she can do. That's leadership for you!

Yours for leadership
WILL

Tau Chapter

About seventy-five members of Phi Delta Kappa assembled for dinner on the evening of February 19, 1932, in the Christian Association Building of the University of Pennsylvania and were addressed by Paul M. Cook, national executive secretary, Chicago, and LeRoy A. King, University of Pennsylvania. Then they adjourned to the auditorium of Bennett Hall for an address by James N. Rule, superintendent of public instruction, on "New Values for Old," an explanation of the Ten-Year Plan. The fraternity adopted the following resolution:

Phi Delta Kappa is happy to give wholehearted approval to the program of our State department of education. In this we have a solemn obligation. Education must go forward. It cannot regress. Retrenchment is often as dangerous as overexpansion. The public school system has become an American tradition. It must be as actively and whole-heartedly supported as any of our cherished ideals of democracy. In support of this statement, the following resolution is offered:

WHEREAS Phi Delta Kappa has adopted the words "Research, Leadership, Service" as keynotes of its doctrines and ideals and

WHEREAS it is felt that there is a real need for cooperation, coordination, and active encouragement of our educational programs, and

WHEREAS it is deemed essential that those who are entrusted with the responsibility of formulation and carrying out of these programs receive proper professional support,

Be It Resolved:

That Tau Chapter of Phi Delta Kappa formally subscribes to the program of the superintendent of public instruction known as the Rule "Ten-Year Plan," and that the fraternity render him

(Continued on page 17)

The PHI DELTA KAPPAN

THE OFFICIAL NATIONAL ORGAN OF
PHI DELTA KAPPA

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Send copy for publication direct to the editor. Chapters should carefully edit all copy before sending it in. Members in the field are invited to send communications, suggestions for improvement, and contributions to the editor.

SERVICE TO MEMBERS

Certain types of service are available in the National Office of Phi Delta Kappa at your command as a member of the fraternity. First of all there is a standing invitation to individual members to visit the office and to become acquainted with the members' records and the work of the office. Some members make it their business to call at the office whenever in the city. Others seem unable to find the time, or perhaps they cannot find the office. We hope that members will make it a part of their business to find us whenever they are in the city.

The addressograph equipment which we now have in use makes it possible to run off city or state lists of members very easily and quickly. The office will be glad to supply such lists on request. The plates from which such lists are run are filed in geographic order, hence the limitation of the service to geographic lists. When you are preparing a mailing list for a breakfast, luncheon, or dinner announcement in connection with the State Education Association meeting, ask us for the list in our file. When you wish to arrange for a city gathering of the members of Phi Delta Kappa, ask us for a list. If at any other time, you have legitimate need for a list of members in a given city or state, let us help you. You may wish to have envelopes addressed or a card file prepared. In either case, we can render this service, charging you only for the supplies used.

Do you wish to locate a brother member whose address you have lost? It may be that we can supply the address for you. At least we shall be glad to give you whatever information we have available. In arranging fraternity programs you may wish to know whether certain prospective speakers are members of the fraternity. First of all, try to find the name in the fraternity directory. If you do not have one available or if for any other reason you wish to call upon the national office for assistance, we shall be pleased to supply the information.

If you are traveling through Chicago or to Chicago and find that you have need for a limited amount of stenographic help or if you wish to make use of one of our office typewriters, or the mimeograph, it will be considered a pleasure to serve you and your request for such service, a compliment to this office. There are, quite obviously, certain practical limitations to the extent of the service which we may render but we are certain that we need have no apprehensions along that line.

The Author's section of the *Phi Delta Kappan* is in part a type of service which we render to the authors in our membership. It is also maintained as a section of the magazine because of its value to our readers. Contributions are voluntary. If you have written a book which has been published within the year and if you have anything to say in justification or explanation of it or by way of a description of it from the author's point of view, there is a standing invitation to you to contribute to that section of our magazine. Each statement must be prepared expressly for the *Phi Delta Kappan* by the author and signed by him.

Can you suggest other ways in which the office can be of direct service to you and to other members? After all, the office is your office and as far as time and energy permit, we shall find it a pleasure to be of service to you.

THE DELTA ACHIEVEMENT

The Sixth Directory of Delta Chapter, 1932, edited by Robert L. Fisher with the assistance of David L. Greene, is worthy of special mention. It is the sort of a directory of which any chapter might well be proud. The directory includes several pages of information valuable to each member of the chapter, a listing of the officers and initiates by academic years from the beginning of the chapter, chapter statistics, a classification of the membership by positions held, a geographic directory, and a well prepared alphabetical directory.

The chapter supplied the directory to all of its members, to each chapter of Phi Delta Kappa, and to each District and National Officer. The spirit shown in sending the directory to this large mailing list with the compliments of the chapter is commendable, to say the least. The preparation of such a membership record for a chapter roll of 562 is no small task and we pay our respects to those responsible for the project.

Tau Chapter

(Continued from page 15)

active, whole-hearted, and aggressive support in carrying out the provisions of the said program.

The closing address, an abstract of which follows, was made by Charles E. Sohl, Lancaster, on the subject:

Tau Chapter Program

"Research, Leadership, and Service" are the keynotes of the doctrine and ideals of Phi Delta Kappa. Throughout its entire existence, the fraternity has constantly striven to adhere to these principles. There are, however, serious doubts as to whether each of these three has received its proportional share of emphasis.

The accomplishments in the field of research have been nothing short of marvelous. One need only glance through the pages of the fraternity directory to discover that the vast majority of men who are the educational leaders of today are members of the organization. There is no one to deny that the service rendered by these individuals is practically immeasurable. Nevertheless, the question must be raised as to whether these activities are the results of individual efforts or whether they have been inspired by the ideals of the fraternity.

We at the University of Pennsylvania believe that the guiding spirit in the field of research, leadership, and service should function to a large degree through concerted action of the educational fraternity. Service, particularly, should be performed. The labors of Phi Delta Kappa should not be predominantly in the academic field, and the fraternity should not be content to bask in the glory of the accomplishments of the individual members.

With these objects in view, Tau Chapter has officially embarked on what may be termed an active and aggressive campaign in the interests of service. We have pledged ourselves to the furtherance of a number of projects, some of which are local while others are wider in their scope of application. They include:

1. Active support of the "Educational Outlook" with a view to making it a self-supporting publication.
2. Securing the cooperation of all organizations on the university campus, primarily engaged in the activities of education.
3. A closer relationship between the school of education and the alumni association.
4. A practice school for the school of education.
5. A more adequate placement service peculiarly adapted to the needs of the teaching profession.

It is believed that through these activities the principles of Phi Delta Kappa can be greatly advanced. The cooperation and coordination of activities can be utilized to develop further a kindred spirit which will foster a mutual understanding of the various problems which are ever present. The solution of these problems will be greatly facilitated.

Criticisms of the present educational programs will be greatly lessened by the addition of highly trained teachers whose fitness will be analyzed under conditions which will permit adequate observation so vital for the formation of sound judgment.

It will be possible to apply the principles of guidance in respect to teaching both as a profession and a vocation. The number of "square pegs in round holes" will be considerably lessened. The service rendered to the communities throughout the State will be of incalculable value.

—From *Pennsylvania School Journal*
April, 1932.

AS THE AUTHOR SEES IT

(Please Send Contributions to the Editor)

SALARY AND COST STUDY OF FRESNO SCHOOLS. Walter Crosby Eells. Published by the Fresno City Council of Education, Fresno, California, May, 1932. 198 pages.

This is a survey of certain aspects of the school system of Fresno, California, a city of 52,000 people with a school system employing 500 teachers. It was made for a Citizens' Committee of Fifteen. It aims to measure the educational burden of the city, the ability of the city to meet this burden, the development and adequacy of the salary schedule since 1906, unit costs for all significant phases of the school system, and possible economies which may be made.

As judged by detailed comparisons with twelve California cities of similar size it shows that Fresno has a very heavy educational burden and only moderate ability to meet it. It finds exceptionally low per capita costs in all phases of the school system due to low salaries, heavy teaching loads, and economical management, but exceptionally high costs for various phases of city government. In view of these facts it advises against any reduction in teachers' salaries although recommending minor economies.

It contains an analysis of teachers' income under six subdivisions and a similar analysis of expenses under twenty-one subdivisions. These are based upon detailed schedules covering one year's income and expenses which were filled out by over 98 per cent of the teaching staff and by over 91 per cent of the janitorial and mechanical staff of the schools—a very unusual record for returns on a voluntary questionnaire of such extensive detail and intimate nature. The reliability of the results is considered from several standpoints.

A special analysis is made of the cost of living for teachers as compared with the widely used index number of the United States Bureau of Labor Statistics and the unfairness of this index to teachers is shown.

Most of the outstanding features of the study are summarized in a series of 51 charts and diagrams several of which are of a type not ordinarily found in school survey reports.—Walter C. Eells.

EXTRA CURRICULAR CREDITS. E. M. Draper and J. E. Corbally. Published by A. S. Barnes and Company, New York, 1932. 142 pages.

In the evolution of secondary-school curricula in the United States there has been a tendency to absorb certain activities and educational experiences that were a few years ago considered as extra curricular. With the inclusion of these activities in the regular program there is need to carefully evaluate those which are still organized as extra curricular and to set up standards whereby the high school principal can definitely administer the systems of academic and non-academic credits for extra curricular activities.

In *Extra Curricular Credits* an attempt is made to present current practices in junior and senior high schools throughout the country which have made a serious study of the extra curricular problem. Six administrative problems are discussed: first, extremes in participation of students in activities; second, regulation of student participation; third, recognition of secondary-school faculty members who participate as sponsors of student activities; fourth, the organization of the activities through the office of the Director of Extra Curricular Activities; fifth, evaluation of the educational worth of the various extra class activities and standardization of the academic credit which may be earned in each activity; sixth, articulation of the extra curricular activities.

To make the book of more practical value to school administrators, illustrative material in the form of records and reports has been included. The extent to which academic credit and non-academic credit are used as means of motivation is discussed. The replies to the questionnaire which was sent to carefully selected secondary schools indicated that the school men felt the need of guiding principles in the administration of credit.—John E. Corbally.

What They Lose to Save Schools

A STUDY of retrenchment due to adverse financial circumstances, just completed by the Educational Research Service of the Department of Superintendence and the Research Division of the National Education Association, presents replies from 1,401 cities among those of 2,500 or more population according to the 1930 census.

In 827 cities the minimum budget approved for 1932-33 is 6.3 per cent lower than the 1931-32 budget. The impact of retrenchment falls most frequently on classroom teachers. In only 45.2 per cent of the 1,388 cities reporting on the question will the present level of teachers' salaries be increased or maintained in 1932-33. Four hundred eighty-five cities report an increase in teaching load, made possible by reducing the number of teachers or appointing fewer new teachers than customary to instruct additional pupils.

Retrenchment in the purchase and use of school supplies was the next most frequently mentioned effort toward economy; it is reported by 425 cities. The postponement in the maintenance program is third on the list, mentioned by 341 cities. The operation of the school plant is fourth in order, with 223 cities reporting attempted economies on this item.

Other items, mentioned by 40 cities or more, include (1) curtailment of capital outlay, 182 cities; (2) retrenchment in purchase of textbooks and supplementary books, 173 cities; (3) reduction in expenditures for new furniture and equipment, 118 cities; (4) reduction in the number of supervisors, 80 cities; (5) reduction of sick-leave allowances, 54 cities; (6) reduction in cost of transporting pupils, 49 cities; (7) adjustment of insurance, 43 cities; (8) reduction in night schools, 42 cities; (9) consolidation, 40 cities; and (10) less music teaching, 40 cities.

Many school systems are facing an actual *shortage of revenue,* due to (1) tax delinquency, (2) lower assessed valuations and lower tax rates, (3) faults in tax systems or in tax administration, (4) bank failure, or (5) a combination of these factors. In other cities the financial situation is not acute, but a *sentiment for school retrenchment* has arisen from one or more of the following conditions:

(1) Salaries and incomes of other groups in the community have been lowered; a demand has arisen for corresponding reduction in teachers' salaries and school income.

(2) A depression hysteria clamors for cuts in school costs just because costs have been reduced in other cities.

(3) A lack of appreciation and confidence in the schools, linked with a distrust in all governmental procedures, is appearing.

Among specific retrenchment measures already adopted in some systems and being considered in others are:

I. Administration
   1. Superintendent will carry a principalship
   2. Clerical force reduced in number or in salary
   3. Research department reduced

II. Instruction
   1. Combining principalships
   2. More teaching required of principal
   3. Reduction in number of supervisors —general, special, or both
   4. Fewer department heads in high schools
   5. Reduction in the total number of teachers
   6. Sick-leave allowance reduced; cutting down on cost of substitute service
   7. Teachers' salaries paid in 12 installments instead of 9 or 10
   8. Alternating subjects in high school
   9. Curtailment of instruction in particular subjects
   10. Eliminating semiannual promotions.
   11. Raising the school-entering age

III. Operation of School Plant
   1. Cuts in janitors' supplies; fewer janitors; janitors' salaries reduced

IV. Maintenance of Plant
   1. Needed repairs postponed; maintenance program carried on by janitors

(Continued on page 21)

These notes are prepared by Belmont Farley, Gamma 145, Assistant Director, Division of Publications, National Education Association.

Cooperative Education in College

THE institutions of higher learning which fail to prepare their students, in some measure at least, for the problems of selecting and practicing a vocation are not meeting their full responsibility. Educational leadership recognizes this fact and is therefore devoting much energy to the problems of guidance. Numerous descriptive pamphlets and much valuable counseling have resulted. But words alone, even though employed with the utmost skill, do not achieve a perfect reproduction of ideas. Associations aroused by words vary with personal experience; therefore, description alone can never fully satisfy the demands of guidance. Ultimately, if the student is to gain exact impressions, he must experience at first-hand the conditions of actual practice.

For many years agitation has been going on for a closer correlation between higher education and vocational life in order that the transition from scholastic environment to industrial reality might be less difficult and less costly. Industrial executives have been especially insistent that educators should come to an appreciation of the necessity for combining theory and practice.

Certain schools in consequence have established curricula making it possible to obtain an appreciable amount of practical experience in conjunction with a prescribed college course. This method of instruction, known as cooperative education, has passed through the experimental stage, more than twenty years having elapsed since its inception at University of Cincinnati in 1906. The last decade has proved its increasing popularity.

Cooperative education provides for the coordination of industrial experience with formal academic courses. The mechanics of operation vary in details with the institutions concerned, but all have a common element, namely, that alternate periods of time must be spent in school and in industry during at least part of the curriculum.

Before being assigned to practical work, the student generally spends a year or two in study and orientation. During this period he devotes his entire time to scholastic work, thereby obtaining a knowledge of the fundamentals primary to the field of his selection. During the remaining years alternate periods in the school and in industry follow in sequence. In order that continuity of service to the employer may be maintained a pair of students alternate on a single job.

Combining classroom instruction and industrial experience under actual working conditions has certain specific advantages. The student makes many contacts with the actualities of life. If the conditions of practice are unsatisfactory his plans may be changed before expensive investments in training are made.

Specialization which characterizes our economic order, gives rise to many options within every profession. Industrial experience forces the student's attention upon the branches of his selected field and provides intimate contact with them. Increased proficiency in technique and greater comprehension of industrial requirements warrant advancement to new and related departments as well as rotation within a department. Thus the students may explore various vocational opportunities with the idea of determining those in which they have the greatest interest and aptitude.

Failure to appreciate the prerequisites for a career accounts for many educational and vocational misfits. Frequently an interest in things mechanical, a curiosity very common to adolescence, is er-

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This article on cooperative education and vocational orientation was written by Milton J. Schlagenhauf, Upsilon 95, Director of Admissions, Northeastern University, Boston, Massachusetts.

roneously taken as evidence of aptitude in the field of engineering. Ability to repair mechanical devices is often taken as evidence of qualification to evolve into a mechanical engineer. Cooperative training brings a more exact understanding of the aptitudes and abilities essential to success in a specific phase of vocational life, and early acquaintance with the true requirements of a field is of considerable value to the student.

Colleges are not operated for private gain; costs, therefore, make prohibitive the "junking" of laboratory equipment as rapidly as new designs are produced. With industry, profit making and profit taking are primary. Therefore, the installation of the latest offerings of the market, which mean greater profit, are expedient in business. Experience in the world of economic activity acquaints the student with the newest of equipment and the latest developments in shop practice and saves the graduate much embarrassment.

By taking an active part in commercial affairs the student enriches his own personality. He sloughs off many of the indolent mental habits of the callow undergraduate, for his experience with older and more skilled workers adds to his sense of responsibility. There is a constant challenge to his initiative in that he must demonstrate his capacity to accomplish tasks assigned to him in competition with other men possessing less training but more skill.

A common experience of college graduates is to meet disappointment lurking at the doors of industry. During the vital transitional years of optimistic youth most students are sheltered from the realities of life. Filled with the spirit of idealism, suddenly upon graduation, they are thrust upon the world of everyday experience only to find disillusionment. Many are startled to discover that their college courses often have no direct bearing upon the work-a-day world and that the idealism and perfect harmony presented as theory in class must await further progress and adjustment in social relations. Combining theory and practice under the guidance of sympathetic and experienced teachers during those attitude-forming years prevents warping the student's mind and makes for a sound and well balanced outlook.

The cooperative plan widens the door of opportunity for the young man of aptitude and ability but of limited financial resources. In addition to gaining practical experience, and early learning the actual operating conditions of his vocation, the cooperative student receives from his employer compensation limited only by the student's worth to the organization.

Statistically it has been found that men educated on the cooperative plan are placed more quickly upon graduation, hold their positions with a higher degree of permanence, and win promotions rapidly. The chief reason for this is not so much that theory and practice have been coordinated, or that the student has had an opportunity of earning while learning, but that he has been able to adjust himself before graduation to the actual working conditions of life which the ordinary college graduate finds to be so vastly different from the highly artificial social, moral, and ethical atmosphere of undergraduate days.

Cooperative education is training men who find that the world is offering limitless opportunities for them. It has been proving for the last quarter century that it is thoroughly efficient and highly stimulating. And above all, it is keeping constantly in view those extremely challenging complexities which already are appearing on the horizon of tomorrow.

What They Lose to Save Schools

(Continued from page 19)

V. Coordinate Activities
   1. Health program — medical, nurse and dental service

VI. Fixed Charges
   1. Group-insurance plan discontinued

Guidance in College Education

DURING these times when economists, business leaders, legislators, and educators are offering various suggestions for a better planned program of production, distribution, and consumption, together with the more careful employment of various economic forces, it is not untimely to consider what is being done by some of our colleges to direct their students into business employments.

The institution chosen to illustrate this is the University of Cincinnati, partly because it first attempted, in 1918, commercial education on the cooperative basis at the college level, and partly because the author himself is a graduate from one of its colleges.

The successful and progressive functioning of the relationship between vocational education and guidance is always an interesting one in the school where many specialties are open to the student. And such is the challenge to the school of business for the field it serves presents over twenty-five subfields of special opportunity to the commercial student; a field of many specialties from the training point of view, although one that is more or less well integrated from the "big business man's" point of view.

At Cincinnati, it was found that two-thirds of the students achieved some selection of a commercial specialty during their course, while the other one-third came to their graduation date without a choice made. The first group may be said to have had some vocational education, while the other portion of the students experienced what might be termed "developmental" education. This latter can be credited as chiefly guidance in nature, plus some elements of comprehension about business organization, and with a problematical contribution toward any specific business occupational preparation.

By P. Evans Coleman, Alpha Iota 4, Professor of Marketing, College of Commerce, University of Detroit, Detroit, Michigan. Now graduate student at Columbia University.

The College of Engineering selects for its commercial course its incoming freshmen from an application list of several hundred, and employs the high-school record, as well as a preliminary examination for some, in its final choice of about 150 freshmen. During the first year, about half of these eliminate themselves due to the rigor of the engineering curriculum.

The first class of commercial engineers graduated on the cooperative plan in 1923. By 1930, when this inquiry terminated, two hundred commercial students had graduated from this course. As a basis for this inquiry, sixty individuals were chosen at random from the classes of 1925 to 1930, students who were employed in or near Cincinnati, and therefore accessible in a personal follow-up. A verbal questionary rather than a written letter was used to get the data. Since no bias was used in the selection of this small group, they may be considered representative of the entire group.

Among the thirty-nine who chose some specialty during the period of their training, and followed it upon graduation, there was a wide range of choice, both as to the time of selection and as to the particular fields chosen.

TABLE I

YEAR OF CHOICE	NUMBER OF STUDENTS
Beginning of First Year	3
Beginning of Second Year	9
Beginning of Third Year	8
Middle of Third Year	1
Beginning of Fourth Year	8
Middle of Fourth Year	3
Beginning of Fifth Year	7
Not Made in College (Developmental)	21
Total Number of Students	60

The fields chosen during college and after graduation were as follows: accounting, 16; advertising, 2; banking 2; business research, 10; credit, 3; foreign trade, 1; industrial engineering, 3; general insurance, 1; life underwriting, 3; merchandising, 3; educational personnel, 1; production manager, 1; office manage-

ment, 2; purchasing, 1; manufacturing sales, 5; sales promotion, 4; stock brokerage, 2; and commercial teaching, 1.

The means of occupational guidance were twofold, but very largely lay in the discovery of job contacts by the coordination department of the university. The 60 students worked during their period of training on 402 separate jobs or kinds of work (an average of 6 plus per man) for 210 different employers (or an average of 3 plus) for the five-year period (approximately 25 employed months). Of these 210 employer contacts, the men themselves made ten per cent; the others were provided by the coordinator of the university.

Other guidance service, besides the exploratory experiences above, must be credited to the university; 13 students (21 per cent) were allowed to transfer to the commercial engineering course from some other course in the college (electrical, civil, mechanical, or chemical).

The exact nature of this guidance control is simple in its paternalism, some would say. The students in the early years of their course accept, in the main, whatever job openings are presented to them by their coordinator. This executive spends his mornings going about his territory and interviewing employers, and his afternoons are devoted to office conferences with students. The coordinator has been able to arrange permanent cooperative jobs in many employing firms, so he quite often places a freshman where a sophomore was employed during the previous year. Then, in addition, some time is spent in getting new employers to agree to the hiring of a cooperative student.

During the last two or three years of his course, the student, if he is dissatisfied with his progress with an employer or with his occupational specialty, can either seek a change through the coordinator, or initiate one himself. This may grow out of his own exploratory experiences, his observations, or the suggestions of parents or friends, and whatever he discovers or chooses for a new job, he lays before the coordinator for his sanction. This is necessary so that the other student, his alternate, will not suffer and it permits the coordination department to make the necessary adjustments. That only ten per cent of the employer contacts are made by the students themselves, and most of this is done in the latter two or three years, indicates that a very small per cent of the men rely on their own initiative or resources to make career plans. They accept, in the main, whatever is open or proffered them through the university.

That a fairly good range of commercial pursuits is laid before them is evidenced by the spread of the graduates over eighteen subfields, out of the twenty-five or more commercial fields. This is contrasted with the limited range offered the Oregon State students by their College of Commerce. Their published follow-up indicates that 44 per cent of their graduates enter teaching or merchandising, by far the greater number in the former (30 per cent). The Harvard Graduate School of Business Administration announcement about their 1930 class showed that 69 per cent of their graduates went into banking or marketing, by far the greater number into the first mentioned (42 per cent). Nevertheless, there is some complaint among the upper classmen at Cincinnati, that there are not sufficient efforts made to introduce them to more opportunities in employed life.

To meet this call, and to focus the responsibility upon the student in making his own way down the paths of employment prospects, (for example, getting jobs in firms of his own choosing and in specialties of his own selecting) the author has just completed a five-year survey of 27 subfields of business, presenting the comparative opportunities for employment and advancement. Contributed to by leaders in these many business specialties, the volume is being

printed under the title, "A Guide to Commercial Careers." Each field is treated according to various topics, viz: growth, professional status, subfields, duties, positions, necessary qualifications and training, promotion possibilities, entrance chances, supply and demand, income, advantages, and disadvantages. It is expected that such a series will help many commercial students to see better what business has to offer them and thus facilitate their own self-guidance.

As it is, the University of Cincinnati, the first university school of commerce to establish a cooperative liaison with commercial employers, has developed a fairly good program of guidance. Thirty-three per cent of the students are given "developmental" training for five years, during which time they have some opportunities to explore several fields of business, and determine upon a specialty after graduation. The other men, sixty-seven per cent of them, attain some decision within the period of their training, and henceforward, conceive their schooling as much as possible as a piece of occupational training.

But this majority varies in the time of choice. If we designate as a unit each year of suspended training or developmental education till the time of choice, we can draw some further comparison between the vocational guidance and educational objectives. Some of the following material is drawn from Table I.

TABLE II

INDIVIDUALS		YEARS		UNITS
3	times	0	equals	0
9	times	1	equals	9
8	times	2	equals	16
1	times	2.5	equals	2.5
8	times	3	equals	24
3	times	3.5	equals	10.5
7	times	4	equals	28
21	times	5	equals	105
60		TOTALS		195

The figures in the "Years" column denote the number of years spent by the students in college before a commercial specialty is chosen. The maximum of units possible would be 60 (men) times 5 (years) or 300. Thus, actually 195/300 of the entire five years is spent on guidance for all of the students and efforts to understand the nature of business organization without any specific occupation being kept in mind as a training objective.

So virtually 65 per cent (195/300) of the men's time is consumed in discovering goals and determining objectives and getting an understanding of business organization, while the remaining 35 per cent of their time can be legitimately charged to the purpose of occupational training. Consequently, the university is justified in laying down a general subject-matter curriculum required by all, and parallel to this, providing employer liaison, job sequence, and development so that individual differences can make the most of all opportunities, aided by the work of the special liaison officer, the coordinator.

Another implication from this follow-up is that guidance should be elevated to a first rank as an important objective in college commercial education, because specific occupational training lies so much within the effective province of the specialty employment itself.

Education by Radio

The National Committee on Education by Radio, Tracy F. Tyler (Omicron 231) is chairman, has been engaged in making a survey of the use of radio in education. The committee in charge of the field work consisted of C. M. Koon of the Office of Education, Morse Salisbury of the Department of Agriculture, and Tracy F. Tyler. This project is the first national survey of the field of radio education.

The information secured covers such items as what each institution is doing or has done and in addition the opinions of the administrative officers as to certain matters not actually established on a factual basis. The survey will furnish invaluable information to educators interested in radio education. The field work covered all of the land-grant colleges and state universities of the United States.

Guidance in Teacher Training

STUDENT guidance is one of the most difficult problems facing teacher-training institutions today. It is a fundamental error to assume that all students coming to a teacher-training institution should eventually become teachers. With a large surplus of certified applicants from whom to select new teachers, school officials naturally become more and more critical about the candidate's qualifications. The present situation provides an opportune time for diverting from teacher training young people who are obviously unfit; and also for motivating others who are more promising to give most careful attention to the full development of their teaching equipment. The next practical step to teacher training lies not along the line of adding more academic and professional training of the traditional type, but rather in providing a guidance program for diverting the less promising toward other occupations and for cultivating more fully the complete teaching equipment of the more promising.

Very little systematic effort in the way of student guidance is yet to be found in the nation's teacher-training institutions. The oversupply of certified teachers and the excess of teacher-training students which make a guidance program not only urgent but fully possible, are of recent origin. There does exist, however, a wide realization of the importance of the problem. A teacher-training guidance program should include the preprofessional, the professional, and the noviceship stages of preparation. Preprofessional guidance will extend over the secondary education period. The student who looks upon teaching as his probable life work should maintain a reasonable proficiency in the fundamental academic subjects, develop proper habits of study, correct remediable physical defects, cultivate an effective personality, participate widely in extracurricular activities, and acquire some appreciation and skill in the fine arts. Professional guidance comes during the upper division and graduate work, and should assist the individual student to obtain the best kind of preparation for the special educational field which he expects to enter. Since no student can be completely prepared for teaching upon being graduated by a teacher-training institution and since future success as a teacher depends so much upon the first experiences, the guidance program should extend over a period of noviceship during which the teacher-training institution should provide a year or two of follow-up work before placing a stamp of approval upon the individual as a fully certified teacher.

The factors involved in a teacher-training guidance program during these stages may be classified as academic, professional and personal. Students who plan to teach in the elementary school should be held responsible for reasonable proficiency in the fundamental school subjects. Mastery of correctly spoken English should be required of all. Kindergarten and elementary teachers should select one of their minors in a special field such as music, art, dramatics, manual training, or physical education. Satisfactory proficiency rather than number of units credit must be the standard employed in successful academic guidance. Professional guidance is more than fulfilling the requirements outlined in a curriculum. Teachers are both born and made, and the making requirements are somewhat conditioned by native bent. In professional guidance the emphasis should be upon the fact that a teacher is being trained rather than that a curriculum requirement is being fulfilled.

Preparation as a person is a fundamental part of any teacher training. No amount of academic or professional train-

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By A. R. Lang, Delta 237, Dean of School of Education, State Teachers College, Fresno, California. A synopsis of discussion in Alumnus Delta Chapter of Phi Delta Kappa.

ing will compensate for the personal deficiency. The guidance program must assist the student in developing the personal characteristics essential to successful teaching. A prospective teacher must be encouraged to participate in the social activities of the school and to develop some outside interests or hobbies. An important part of personal guidance has to do with the physical and mental fitness for teaching. Disqualifying physical defects should be divided into permanent and temporary groups. The temporary group should include those remediable defects which must be corrected before either beginning or completing the teacher-training course. There is rather general agreement among school physicians regarding the defects which should be a bar to teaching. There is a direct relationship between physical defects and mental adjustments. There are many personal traits toward the improvement of which the guidance program must be directed, such as a helpful attitude toward others, personal appearance, manner of meeting people, initiative, self-reliance, punctuality, and the like. All these characteristics are important in successful teaching. They can be acquired, and it is a function of teacher-training institutions to give attention to their cultivation as well as to the academic and professional training. Any guidance program which neglects these success factors is incomplete.

Publicity for Teachers Colleges

A RECENT study of the publicity program of Colorado State Teachers College was made in which the most vital problems of newspaper publicity were analyzed.[1] Educational publicity was found to be the first aim of the program, and it was recommended that the best of educational theories and methods should be so advertised as to stimulate a live public attitude towards the progress of education.

A table showing the opinions of ten publicity directors of as many prominent midwestern colleges and universities was compiled. This reveals that five of these persons considered educational publicity best; and five thought research publicity best. Four thought direct publicity should be used; and six thought it best to use indirect publicity, that in which news stories mention the name of the institution but which emphasize certain phases of its activities.

Newspaper publicity covering a period of eight months resulted in the following table.

TABLE I

RANK ORDER BY VOLUME OF COLORADO STATE TEACHERS COLLEGE NEWSPAPER PUBLICITY, 1930-1931

Type	Column-Inches	Per Cent
Athletic	3,257.5	44.0
Student Activities	1,380.5	18.5
Educational	1,088.0	14.5
Faculty	869.0	11.3
General	855.0	11.1
Finance	98.0	0.6

It will be noted that these data show that the "first aim of the program," educational publicity, ranked third, and received only 14.5 per cent of the total volume of publicity. It does rank highest, however, of those activities not directly concerned with student life. It will also be noted that athletic articles showed a total of 44 per cent, nearly four times that of faculty or general news.

After reading the report of the study,[2] a question arose in the writer's mind as to how the newspaper publicity of Mississippi State Teachers College would compare with these findings. The total newspaper publicity of the school in the

By Z. T. Johnson, Psi 262, Professor of History, State Teachers College, Hattiesburg, Mississippi.

city newspaper for a period of ten months, from January 1 to November 1, 1931, was listed in eight groups, and the following table resulted.

TABLE II

VOLUME OF STATE TEACHERS COLLEGE PUBLICITY, JANUARY-NOVEMBER, 1931

Type	Number Articles	Column Inches	Per Cent
Athletics	109	861	46.9
Student Activities	33	348	18.9
General News	36	241	13.2
Faculty	33	182	9.4
Educational	11	63	3.5
Pictures	11	62	3.4
Finance	9	55	3.0
Political	3	23	1.3

This shows that general news ranked third, and if the pictures and political articles were placed with it the percentage would be 17.3, nearly as high as student activities. In comparison with the Colorado study this study showed the faculty and education articles reversed, with the faculty far ahead. It is interesting to note that articles dealing with student life totaled 65.8 per cent.

Both these tables of findings bring up some knotty questions. If these ten midwestern publicity directors are correct in their opinions, then both these colleges are woefully failing in their publicity programs. All ten favor either educational or research publicity; and yet one gets only 14.5 per cent of that nature, and the other 3.5 per cent. On the other hand, the six who favor indirect publicity must be right, because the nature of the articles published shows that a great majority of them are news stories in which the institutions are "played down," while certain phases of their activities are emphasized.

Just what is the problem of the publicity program of the teachers college? If it is to put its educational publicity over, there are very few which are succeeding. Is it not rather to keep the institution before the public mind in all its activities? Is not the main purpose to win public favor and support, both financially and in the securing of students? How can its program be kept up to standard without public backing? In order to be a success a college must have students; it must put over an effective educational program; it must secure adequate financial support. Herein lies the challenge of its publicity program. To emphasize any one phase of its activities to the exclusion, or near-exclusion, of other phases is to kill the very purpose for which it seeks newspaper publicity. "It should be the fundamental aim of the teachers college to stimulate further the type of newspaper publicity which will enhance the constructive service of the institution to its constituency as well as to make clear the manner in which it is performing its function in society."[3]

1. M. A. thesis by M. L. Buck, Colorado State Teachers College, 1931.
2. *The Phi Delta Kappan*, October, 1931, 89-91.
3. *Ibid.*, 91.

"I believe that we should go forth to proclaim to our public the necessity of maintaining the school service in order that we may preserve our social inheritance. I believe that we should call upon our people to bear the burden of taxation and, if need be, to suffer privation, in order that we may insure to ourselves and to our posterity, life, liberty and the pursuit of happiness."—George D. Strayer, Professor of Education, Columbia University.

"It behooves intelligent educators to search the present emergency for opportunities to effect educational reform which will be of permanent value. Such reform may be easier to achieve in some instances in an economic crisis than at other times. If we know where we want to go, if we are resolute in throwing our weight into the balance where it will accomplish the most good, we may look back upon the early thirties of the twentieth century as a time when advances in the financing of education of a most substantial character were achieved."—David E. Weglein, State Superintendent of Schools, Baltimore, Maryland.

Contents of College Newspapers

MANY critics of college journalism have declared that football news, social news, and news of other activities outside the curriculum have been given more space in college newspapers than their importance justifies. In order to discover what types of news have been receiving greatest emphasis, a study was made of the contents of thirty representative college newspapers. This study was also made to determine, in so far as newspapers reflect the life and interests of their readers, what phases of college life are receiving the most attention from the students.

The papers used in this study were picked at random from those representing tax-supported colleges from all sections of the country. The colleges represented included eleven state universities, five state colleges of agriculture and mechanical arts, twelve state teachers' colleges, and two state schools of mines. Six of the institutions were in the East, five in the South, eleven in the Middle West, and eight in the West.

Every issue of the papers published by each of the thirty colleges and universities cooperating in the survey was studied during a fifteen-week period, October 13, 1930, to January 26, 1931. There were 447 issues of college papers studied.

For the purpose of this study the following twelve divisions of news were made:

Scholarship: News of scholastic achievements.

Student Government: News concerning activities of student government.

Instruction: News of class work, school officers and teachers, and the school plant.

Literary, Musical, and Departmental Club Activities: News of glee clubs, bands, debates, dramatics, lectures sponsored by the school, school newspapers, and departmental clubs.

Religious and Moral Training: News of Christian associations, church notices, and reports of sermons.

Physical and Health Education: News of physical education and health work.

Interschool Sports: News of athletic contests between schools.

Intraschool Sports: News of athletic contests within the school.

Humor: Jokes and humorous stories.

Society: News of social activities.

Exchanges: News clipped or re-written from other papers.

Miscellaneous: A small percentage of news that was not classifiable under any of the above headings.

All news in the papers was classified as to its type, as determined by the above divisions, measured in column-inches, and tabulated in column-inches and percentages.

Table I presents a summary of the findings of this survey. It will be seen from a study of the table that interschool sports ranked first with 23.8 per cent of the space being given to it. Instruction

TABLE I

SUMMARY OF THE TOPICAL DISTRIBUTION OF NEWS GIVEN IN COLUMN-INCHES AND PERCENTAGES FOR 447 ISSUES OF COLLEGE PAPERS

Rank	Classification	Column-Inches	Per Cent
1	Interschool Sports	31,053	23.8
2	Instruction	27,311.5	20.9
3	Literary, Musical, and Club Activities	23,080	17.7
4	Society	22,034.5	16.9
5	Humor	8,533.5	6.6
6	Exchanges	5,496.5	4.2
7	Intraschool Sports	3,525.5	2.7
8	Religious and Moral Training	3,193	2.48
9	Scholarship	3,179.5	2.32
10	Physical and Health Education	1,354.5	1.1
11	Student Government	1,000.5	.8
12	Miscellaneous	665	.5
	Total	130,427	100.0

By Robert S. Ellwood, Alpha Xi 34, J. Sterling Morton High School, Cicero, Illinois. The original study was made by the author in partial fulfillment of the requirements for a Master's degree at the University of Alabama.

came second with 20.9 per cent of the space. Literary, musical, and departmental club activities ranked third with 17.7 per cent. Society news was fourth, covering 16.9 per cent. The remaining eight divisions of news had from .5 per cent to 6.6 per cent of the space given to each of them.

Instruction occupied over one-fifth of all news space. It ranked second in the twelve divisions of news, although it deals with the more matter-of-fact and less spectacular phases of college life.

It is interesting to note the large amount of space that was given to extracurricular activities. These activities, including interschool sports; intraschool sports; literary, musical, and departmental club activities; religious and moral training; society; and student government, occupied 64 per cent of all space. This group represents the most active phases of student life.

TABLE II

THE RELATIVE PERCENTAGES AND COLUMN-INCHES OF NEWS OF EXTRACURRICULAR ACTIVITIES APPEARING IN 447 ISSUES OF COLLEGE NEWSPAPERS FOR A 15-WEEK PERIOD

Item	Column-Inches	Per Cent
Interschool Sports	31,053	37.
Literary, Musical, and Club Activities	23,080	28.
Society	22,034.5	26.
Intraschool Sports	3,525.5	4.
Religious and Moral Training	3,193	4.
Student Government	1,000.5	1.
Total for Extracurricular Activities	83,886.5	100.

From Table II it can be seen that sports occupied 37 per cent of the space covered by extracurricular activities. Literary, musical, and departmental club activities covered 28 per cent, and society 26 per cent.

In so far as newspapers reflect the interests and activities of their readers these findings may be considered as reflections of the interests and activities of college students.

While college students are interested in athletics and social news to the extent that about one-fourth of the space in college newspapers is devoted to sports, and one-sixth to society, interest in these activities is not overwhelming, nor is it more than would normally be expected from such active and spectacular phases of student life. Over one-fifth of the news space is given to instructional activities. Because these latter activities are more prosaic and less spectacular than most of the other phases of student life, this large amount of space devoted to them is indicative of a healthy interest in classroom work. The large amount of space, 18 per cent, given to literary, musical, and departmental club activities by college newspapers indicates that many college students are greatly interested in cultural development.

As a whole this study tends to reveal that there is a balanced distribution of news material in college papers. In so far as the findings represent a reflection of the interests and activities of college students, they appear to be the interests of a normal and healthy-minded group.

Magazine Mailing List

The mailing list for the *Phi Delta Kappan* includes the names of all members in good standing. The June issue is the first in the new fiscal year (the 24th), and it is sent to all who have paid their fees for the previous fiscal year. In this way, members are given 60 days' grace in the payment of fees without the loss of a single issue of the magazine.

Phi Delta Kappa fees are payable in advance for each fiscal year. If you have not received a notice of dues payable from your chapter or if you have just been negligent about sending in the check, now is the time to act. Do not miss the August issue and succeeding numbers of the magazine. The national office is not able to supply back numbers to those who make a late payment of membership fees.

To those who are in arrears, we send this issue with our compliments.

Has your address changed for next year? Will you have a temporary summer address? Tell us about it.

The Service Key

MORE than nine hundred service keys have been granted to our members in conformity with the conditions established by our National Council. Frequently inquiries are addressed to the national office regarding the conditions under which a service key may be secured. The conditions are defined by the National Council as they appear in the following paragraphs. The National Council has also been very explicit in its instructions to the Executive Secretary to abide strictly by the regulations as set forth. It is therefore not possible to make exceptions and the conditions must be met in every respect if the application for the service key is to be honored.

What constitutes the required period of seven years in "good standing"? This question is frequently asked. It has been the practice in the national office since the first keys were granted to count the year of initiation as a year of good standing, regardless of the date of the initiation. The seventh-year condition is considered met as soon as the dues for the seventh year have been received, excepting that the key may not be granted until the beginning of the fiscal year on which the seventh-year dues apply. This is a very liberal interpretation of the provision set up by the National Council. The practice has had the approval of the Council, however, and it has become established through several years of application.

The Constitution provides that not more than two years' dues in arrears may be accepted from a member who desires reinstatement to "good standing." Dues in arrears which are accepted count toward the service key requirement the same as dues paid in advance. Each year's membership card carries a statement of the number of consecutive years' good standing credited to the member who receives the membership card. This may be used as your guide. Simply refer to the statement on your membership card and if the other conditions have been met, you are eligible for the service key. Use the application on the next page or secure a blank from the national office on which to make the application.

BY-LAWS, ARTICLE V.

SECTION 1. *Meaning and Purpose.*

"The National Council shall adopt a service key which may be purchased and worn by members of the fraternity who meet the conditions set forth in this article. It shall be a tangible evidence of continued service to the cause of education and to the fraternity.

SECTION 2. *Upon Whom Conferred.*

"Members of Phi Delta Kappa who meet the service requirements which follow may purchase and wear the key. To be eligible a member must have the following qualifications:

"1. He must have been at some time registered as a graduate student in an institution where an active chapter of Phi Delta Kappa exists, and must have to his credit at least twenty-five semester hours in education courses, of which ten or more are classifiable as science of education.

"2. He must have been for seven years engaged in successful service in the field of education. These seven years need not be consecutive.

"3. He must have been a member of Phi Delta Kappa in good standing for a period of seven consecutive years immediately preceding the date of application.

"Any member of the fraternity meeting these standards may make application for a service key to the secretary of his local chapter. This application accompanied by a certificate of eligibility signed by the president and secretary of the chapter and impressed with the chapter seal shall be forwarded to the national secretary who shall then furnish the key to the member through the chapter. The member who receives the key shall remit the purchase price with his application.

"In case the applicant is found ineligible the application and fee shall be immediately returned to him."

The price of the Service Key has been reduced to $5.00, effective on June 1, 1932. Personal checks should include 5 cents extra to cover exchange charged by Chicago banks.

Application for Phi Delta Kappa Service Key

Name ..... Chapter and No. .....

Position and address .....

Date of initiation into Phi Delta Kappa Fraternity .....

Have your local and national dues been paid for each of the past seven years? .....

Are you in good standing for the current fiscal year? .....

Are you, or have you been at some time, registered as a graduate student? .....

At what institution? .....

List below by positions and inclusive dates the service in the field of Education on which you base this application: (A minimum of seven years is required.)

POSITION	PLACE	INCLUSIVE DATES

List below by subject and semester hours your course credits in Education. A transcript from the registrar's office is a very desirable form in which to submit this data. The transcript will not be returned. (A minimum of 25 semester hours is required, 10 hours of which must be classifiable as Science of Education.)

COURSE	INSTITUTION	YEAR	CREDIT

Degrees received and dates .....

Application forwarded to chapter secretary ..... 193.....

Amount of remittance enclosed herewith is $..... Check No. .....

PHI DELTA KAPPA PRICE LIST

Publications and Supplies

Jewelry

The jewelry supplied by the fraternity is illustrated and described below. The styles and prices were established by the Ninth National Council and ratified by the chapters of the fraternity. Jewelry is supplied in 14-karat yellow gold only.

The Constitution provides that each initiate shall be furnished an official pin, free of cost to him, purchased through the national office. The number 1 pin has been designated as the official pin in the By-Laws. Other pins are available to initiates, however, on payment of the additional cost by the initiate.

No. 1. This is a small plain pin. The price is $3.25.

No. 2. This pin is the same size as the No. 1 pin but is set with three half-pearls in the bar of the "Phi." The price is $3.75.

No. 3. This is a larger plain pin. The price is $3.25.

No. 4. This pin is the same size as the No. 3 pin but is set with ten half-pearls in the "Phi." The price is $4.50.

Always order pins by number.

The Service Key

The service key may be purchased by any member who meets the requirements of the By-Laws, Article V. Orders may be placed only through the secretary of the chapter to which the member belongs. Application blanks may be secured from the chapter secretaries or from the national office. The service key is supplied in yellow gold only. The price is $5.00.

The Coat of Arms is used on chapter and national stationery and publications. It may also be used upon personal stationery and like material as chapters may permit or dictate. The price of this size cut is $1.50.

Send remittance with order. When sending personal checks, add 5 cents to cover exchange charged by Chicago banks.

All jewelry and supplies are shipped postage prepaid by the national office.

The Phi Delta Kappa Directory—1931	$1.50
The Ritual of Phi Delta Kappa	.60
The Constitution and By-Laws (Supplied free to initiates)	.25
The Phi Delta Kappa Shingle (Certificate of membership)	.50
Single numbers of The Phi Delta Kappan (National magazine)	.35
Bound Volumes of The Phi Delta Kappan (While available)	2.50
Unbound Volumes of The Phi Delta Kappan (While available)	1.00
Receipts and Disbursements Record	1.90
Individual Account Cards (each)	.02
Candidates Personal History Blanks for Chapter Files (each)	.04
Entry and Discharge Membership Record	4.50
Rubber Stamp, National Office Address	1.00

Send all orders to the national office.

Paul M. Cook, Executive Secretary
1180 East Sixty-third Street
Chicago, Illinois

Directory of Chapters

NORTHEAST DISTRICT

HERBERT HARPER, *District Representative*, Murray Hill Industrial High School, New York, New York.

BETA—Columbia University
Garth H. Akridge, Secretary, Box No. 113, Teachers College, Columbia University, New York, New York.

THETA—Cornell University
M. L. Hulse, Secretary, 251 Goldwin Smith Hall, Cornell University, Ithaca, New York.

IOTA—Harvard University
Elmer D. West, Secretary, 6 Lawrence Hall, Kirkland Street, Cambridge, Massachusetts.

XI—University of Pittsburgh
Theodore A. Siedle, Secretary, 209 State Hall, University of Pittsburgh, Pittsburgh, Pennsylvania.

RHO—New York University
Ira M. Kline, Secretary, Room 54, Student Activities Building, New York University, Washington Square East, New York, New York.

TAU—University of Pennsylvania
Charles E. Sohl, Secretary, Room 113, Bennett Hall, University of Pennsylvania, Philadelphia, Pennsylvania.

ALPHA BETA—University of Virginia
Edward Alvey, Secretary, Room D, Peabody Hall, University of Virginia, University, Virginia.

ALPHA ETA—Temple University
Everett Townsend, Secretary, Box No. 141, Temple University, Broad Street and Montgomery Avenue, Philadelphia, Pennsylvania.

ALPHA LAMBDA—Boston University
Edward H. Temple, Secretary, 29 Exeter Street, School of Education, Boston University, Boston, Massachusetts.

ALPHA PI—Rutgers University
Robert Walker, Secretary, School of Education, Rutgers University, New Brunswick, New Jersey.

ALPHA RHO—Johns Hopkins University
John H. Schwatka, Correspondent, Southern Junior-Senior High School, Warren & William Street, Baltimore, Maryland.

WESTERN DISTRICT

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Homer P. King, Secretary, Box No. 1165, Stanford University, California.

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ALPHA GAMMA—State College of Washington
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Aubrey A. Douglass, Correspondent, Department of Education, Claremont Colleges, Claremont, California.

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Lonnie D. Huddleston, Secretary, Box No. 49, Faculty Exchange, University of Oklahoma, Norman, Oklahoma.

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E. C. Seyler, Secretary, 102 Education Building, University of Illinois, Urbana, Illinois.

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S. E. Torsten Lund, Secretary, Room 208, Burton Hall, University of Minnesota, Minneapolis, Minnesota.

KAPPA—University of Kansas
Paul Foster, Secretary, 117 Fraser Hall, University of Kansas, Lawrence, Kansas.

OMICRON—University of Nebraska
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Barton Meeker, Secretary, Colorado State Teachers College, Greeley, Colorado.

DEFINITION OF EDUCATION

"Education is gleaning from men and books and laboratories, from field and forest and whispering wind; but it is more;

"It is learning promptness and thoughtfulness, kindliness and helpfulness, and every form of purity;

"It is the mastering of mind and spirit, appetite and passion, thought and word and glance;

"It is knowing that nothing but service brings worthy living, that selfishness means sin, that courage lies in being right.

"Education is the implanting of good habits, the acquirement of efficiency, the development of twenty-four carat character."

The above lines were written by Dr. Thomas G. Blaisdell, Professor of English, Pennsylvania State Teachers College, Slippery Rock, Pennsylvania. They were published in the *Scroll* of Phi Delta Theta.